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USE OF NARCOTICS IN THE TREATMENT OF NERVOUS AND MENTAL PATIENTS *

BY

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When I was asked to open this discussion before the combined Section of Neurology and Psychological Medicine I protested that I was neither a neurologist nor a psychiatrist. It was thought, however, that some observations by a general physician might prove a good jumping-off ground for the experience of those engaged in these two special branches of medicine. I concurred in this, but I will frankly admit that my acceptance of the invitation was influenced quite as much by my desire to pay homage to the doyen of psychological medicine, whose personal request had so honoured me, as by any other consideration. I shall assume the privilege of opener to present the subject from rather a wide outlook, because my own work leads me inevitably to take such a view, and although the essence of the discussion will turn upon the use of drugs, it can scarcely be out of place for the opener to consider exactly where drugs stand in relation to other measures and what are the indications for their use.

Clearly the term "narcotics," as used in this discussion, is generic, and includes measures that allay pain, whether mental or physical, as well as measures that induce sleep. Otherwise we tend to make a convenient distinction between pain killers or narcotics proper, sleep producers or hypnotics, and measures which bring quiet and poise to the nervous system or sedatives. There is considerable overlap between these groups of therapeutic agents. All narcotics help to produce sleep, either indirectly or directly, but all hypnotics do not relieve pain unless used in doses large enough to produce unconsciousness which is more than mere sleep. In this case they are termed anaesthetics, and are, strictly speaking, outside the limits of our discussion. When the chief cause of sleeplessness is pain then even mild doses of narcotics, by allaying it, may induce sleep indirectly rather than directly, and sedatives, by cooling the fevered brain, prepare the patient for sleep which is then more natural than artificial.

Causes of Insomnia

The key to the successful treatment of insomnia, as in every other disease, is a correct diagnosis. We must track down the cause or causes. Psychical causes have been termed "primary," as against pain, fever, etc., which are regarded as "secondary." But sleep is so essentially a function of the whole organism that such a classification is as unsatisfactory as are most classifications in regard to diseases. Anxiety, or mental pain, is not the only

psychical cause of sleeplessness; all the emotions (remorse, fear, love, anger, sorrow, even joy) may give rise to it. These things require psychological treatment rather than, or as well as, drugs. The attitude of the patient's mind towards sleep and sleeplessness is sometimes very important, and especially the fear that want of sleep may cause him permanent injury. The fact that most people sleep more than is necessary, just as they eat more than is necessary, may be made use of in order to reassure the patient who is troubled on this score.

Purely intellectual brain work rarely, if ever, causes insomnia, provided the work be done under reasonably good physical conditions. But excitement—over-stimulation of the mind—frequently does. How, therefore, the patient spends the day, and especially the end of the day, is an important consideration. In some persons excess of bodily fatigue produces insomnia. More frequent causes are the various forms of dyspepsia, and in this category flatulence is a much more common factor than is pain. Here care is needed in the choice of food and the time of the last meal. Some patients sleep better if no food has been taken for at least two hours, and others if they take a little food just before retiring. For the dyspeptics the best hypnotics may well be an alkali, a carminative, or an antispasmodic.

Circulatory and respiratory troubles carry their special indications. Cough is a great disturber of sleep, and has its own list of causes needing consideration. Defects in the nose and other parts of the upper respiratory tract may also call for treatment; so also does pain, whether inflammatory, visceral, or due to direct nerve irritation as in sciatica and other forms of neuritis—or in neuralgia.

Fever, usually associated with toxæmia, demands special attention when present. Doctors and nurses who have not had experience of dealing with typhoid fever patients find themselves at a loss when the relatively unusual case of this disease appears in a severe form. When typhoid was much more rife and much more serious the routine was better understood and better practised. The influenza epidemic of 1918 found many practitioners ill prepared for the treatment of the sleepless pyrexial patient, the cardinal principle of adapting the bed-clothes to the height of the temperature, for example, rather than to the feelings of the patient, being often neglected. Organic brain diseases not infrequently demand hypnotic therapy, and this even when there is a general subsidence of the cerebral functions so that the patient is quiet for hours together. Encephalitis lethargica sometimes deceives us into thinking that the patient does not need sleep, and this may be a serious error.

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Insomnia without Mental or Physical Cause

But we may assume that all these so-called secondary causes of insomnia have been passed in review and have been dealt with so far as is possible. We pass on to the "primary" causes of insomnia. Of course the major psychoses form a very important group; those characterized by excitement are not the only ones requiring hypnotic measures: states of depression may need them quite as much. I shall be followed by speakers who have special experience of handling these patients, so I shall not deal specifically with them. But the sleepless patient who is not the victim of any gross morbid mental defect on the one hand, and who does not suffer from structural bodily disease on the other, presents a problem to all who engage in general medicine.

Before we decide to use any hypnotic drug we cannot know too much about the patient, both his body and his soul. Not infrequently he needs no drug at all, but rather a careful rearrangement of his routine and his habits, and perhaps the restoration of confidence in his ability to sleep, which he may have lost. It is necessary to consider first of all certain general measures. The patient may be, as many of us are, sensitive to noise. If he is intelligent it is not perhaps the actual volume of sound during the night which keeps him awake so much as his appreciation of the fact that certain noises are needless and preventable. This sense of the fitness of things is disturbed, and a process of thought is set going on the matter and a feeling of provocation. Some of us are trying to remedy this evil of needless noise, and I am glad to see that this Association has thought well to express sympathy with our efforts. Next to quiet comes fresh air—proper ventilation of the bedroom. But it must be admitted that if fresh air can only be secured at the expense of extra noise, many patients find that they sleep better if they exclude both.

There is great individual difference in the matter of darkness or light, as there is in that of warmth or coolness; in these things the patient is often a law unto himself. So also is he, as already observed, when food is considered. But in the matter of mental relaxation as a preparation for sleep we probably all follow the same rule, that the more complete this is the more certainly will sleep come to us. Two other general considerations deserve mention—posture and the bed the patient lies on: here are materials for experiment in individual cases.

Indications for Salicylic Preparations

When we come to the question of drugs it is always worth while to consider the simpler remedies first. I have referred already to alkalis, and to carminatives. The salicylic preparations, and especially aspirin, are frequently very useful. Ten grains each of bicarbonate of soda and aspirin—powdered, of course, rather than in tablet form—constitute one of the most useful sleep producers for simple cases of restlessness that I know. The addition of the same dose of bromide of sodium or ammonium will often be effective in even more tiresome cases, where it is important to put a mute upon a too active mind. Smaller doses of pyramidon, or phenacetin, or antipyrine, or a mixture of these, find their indication in another series of cases where there are physical discomforts, such as headache, eyestrain, myalgia, or over-fatigue in the bodily, rather than in the mental, sense. As pure sedatives the bromides are far and away our most useful preparations for controlling discharges of central nerve energy, whether paroxysmal and purposeless as in epilepsy or merely excessive and wasteful.

Of alcohol as a narcotic much might be said. To the teetotaler it is an excitant, and therefore quite useless. To the person accustomed to take it in moderation certain forms of it act as a mild and useful sedative.

Opium, Hyoscine, and Chloral

The great indication for opium and its derivatives is pain, in the presence of which sleep becomes impossible. This is especially so in those conditions in which pain tends to show exacerbations during the night. It is generally quite useless to prescribe pure hypnotics when insomnia is the direct result of physical pain. But the addition of a small dose of such a drug as medinal to an opiate sometimes enables us to give less of the latter than would otherwise be needed. Opium has an undoubted function in some forms of mental pain; very small doses serve at times to produce a state of euphoria, which is helpful in the re-education of the patient's mind along the lines of increased confidence. The older physicians prescribed tinct. camph. co. for the hypochondriac, and one of the best remedies I know for that state of *misère* from which patients of a pessimistic type not infrequently suffer over long periods is a grain of pil. saponis co. twice or three times a day. It has the advantage of not revealing the nature of its essential ingredient, a not unimportant point in these days, when most patients read their prescriptions before they leave our consulting rooms.

The good effects of hyoscine in Parkinson's disease and post-encephalitic Parkinsonism are well known; but this drug is worth exploiting also in some allied states, though always in the smallest doses. For controlling excitement and delirium it is rather dangerous, or so I think. I have seen an excited pneumonic patient felled by it as one fells an ox, the quiet so effectually produced becoming quickly the quiet of death. I do not use the drug in delirium associated with acute infections, or with organic visceral disease. In such patients I rely very largely upon the somewhat old-fashioned mixture of bromide with chloral, and I control delirium tremens by the same mixture, being careful to begin its use too early rather than too late.

Chloral has, I think, gone out of fashion undeservedly. Strangely enough, even bromidia, possessing as it does the attraction of being proprietary, and containing a little of that drug so tinged with romance—cannabis indica—is used very much less to-day than formerly. As to cannabis indica, it is unlikely that many specimens are active, and, when they are, their action is so erratic and individual that it seems largely a gamble if the patient is helped rather than hindered in his search for mental rest.

Of the others of the older group of narcotics, paraldehyde, despite its unpleasantness, still retains a good deal of popularity. Few know the hint given many years ago by Bevan Lewis that tinct. quillaiæ is its best adjuvant. The drug is an alcohol, and therefore acts incidentally as a volatile stimulant—one reason, no doubt, why, with all its nauseous qualities, it becomes occasionally the object of a drug habit. I have known a patient consume a pint in the twenty-four hours, and I remember diagnosing the case as I passed up the street and knocked at the door. For the rest, sulphonal, trional, and chloralamide seem to have lost favour, though we shall doubtless hear if this is as much so in asylum practice as it is in general work. This is an age when direct action is popular, and these drugs, to get their best effects, must be given some time before, and not immediately before, their effect is desired.

Intermediate between these older narcotics and the barbituric group are two bromide-urea compounds which deserve mention—bromural and adalin. I find them both useful, and since not a few patients remind me of the danger of what they call "dope," I am able to assure them that certain recent cautions applied to drugs of an entirely different class.

The Place of the Barbiturates

There is no doubt whatever, I think, that the introduction of the newer group of narcotics, termed "the bar-

biturates," has been a great boon to medicine. I refer, of course, to veronal, medinal, luminal, dial, allonal, and nembital. Not that this exhausts the list: the ingenuity of the chemist and the pharmacist sees to it that the list shall be endless. The British patient, just back from the Black Forest or from Lausanne, proudly takes a carton of the latest isomer of veronal out of her pocket or vanity bag and says: "You will not have seen this new drug, doctor." And she is quite frequently correct. It is claimed for the new preparation that it has all the virtues and none of the drawbacks of the old, and so it may be taken with advantage and with impunity. It seems a pity to dash these hopes in the patient's mind, and, to tell truth, we British are too good doctors to yield to the temptation.

The chief reasons that the barbiturates mark an advance in our available narcotics is that the dosage is more exact and the effects more constant. The number of patients possessing intolerance is very small, and I think the ill effects which have been adduced against their use have been exaggerated.

May I now deal with a few general considerations? In the first place we should remember that there is no ideal hypnotic. To get a constantly reliable effect without passing through a preliminary stage of excitement, to get no gastric irritation or cardiac depression, to get rapid assimilation and equally rapid and complete excretion, and, finally, to get no tolerance established—to get all these things in any drug is impossible. But certain of the barbiturates seem to attain more nearly to this ideal than any other narcotics known to us.

It is not the drug but the drug habit that calls for condemnation. Stimulants and sedatives provide a means of relative or entire escape from the troubles of life, and in this respect narcotics do not differ from alcohol, cocaine, tobacco, and tea. Sleep is one of the safest and pleasantest forms of escaping life. Some folk are able to form this habit of escape without drugs; they are quite as vicious as their less fortunate brothers and sisters who need a drug in order to achieve this blessed oblivion.

I suggest that we pay more attention to the state of the patient's mind and nervous system and less attention to the mere provision of sleep. If we can help him to a state of equanimity during the day, sleep will be more easily won during the night. This leads me to refer to the fact that if half the evening dose of a narcotic be given in the morning and the other half at bedtime the effect is frequently much better. Even such a small dose of medinal as 2 to 2½ grains, say, with 5 grains of bromide, given at (say) eleven in the morning and again on retiring, may be more helpful than if the whole dose be given at bedtime. For one thing the patient is not strung up for the moment of doubt and fear that faces him when the night comes, itself a deterrent against sleep. Again, he does not regard the medicine as a dope of which he is afraid or ashamed, or both—more deterrents.

In other matters it is the day that counts. Patients not infrequently resist a tendency to sleep during the day, lest giving way should prejudice their chances of sleep during the night. I think this is an error. Sleep is a habit—protective no doubt—and I have sometimes found patients sleep better at night if they encourage a doze midday.

Finally, let us remember the efficacy of the sleeping draught (in these days I suppose I should say the sleeping tablet) that is not taken, but stands by the bedside "in case." We must not deny the patient this boon; indeed, we may now insist upon it, for the fear of the dope has with many become greater than the fear of sleeplessness, and we must avail ourselves in the patient's interest of this new fear while it lasts.

OVARIAN CONDITIONS AS CAUSES OF PELVIC PAIN*

BY

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I welcome the opportunity of being one of the openers of a discussion on ovarian conditions as causes of pelvic pain because the subject is of interest to general practitioner and gynaecologist alike, and both will probably agree that so-called ovarian pain is one of the bugbears of medical practice. The word "bugbear" means "something frightful, as a spectre, or anything imaginary which arouses needless fear," and can only be rightly applied to pain that is supposed to, but does not actually, arise in the ovary. The object of our discussion to-day is to decide what conditions of the ovary do produce pain, or, conversely, how much of the so-called "ovarian" pain is really of ovarian origin.

Before attacking the main problem I would like to recall a few facts concerning the anatomy and physiology of the ovary. Although lying within the abdomen the ovary is not covered by peritoneum, but by a layer of cells, often imperfectly preserved, known as the germinal epithelium. This arrangement no doubt facilitates ovulation. T. C. Clare¹ has pointed out that the ovary is also unique in a physiological sense in that it is the only organ in the body normally subject to trauma and consequent reparatory changes. The trauma consists of the surface wound occurring at the time of rupture of the follicle; the reparatory process is the formation of the small scar by which the lesion is repaired. These two factors, together with a third—the periodic increase of tension within the ovary associated with ripening of the follicle and formation of the corpus luteum—have all to be considered in connexion with the subject of ovarian pain. The presence of follicular cysts in an ovary which is not adherent may be regarded as evidence of disordered function due to overactivity of the anterior pituitary, or, as suggested by Clare, increased formation of fibrous tissue (keloid) in the scars of the ruptured follicles, it being well known that there are wide variations in the regenerative capacity of different individuals.

The ovary is attached to the back of the broad ligament by its hilum, and as both uterus and broad ligament have considerable mobility the position of the ovary must be constantly changing.

The ovarian blood supply comes from both ovarian and uterine arteries, and the venous return is through the pampiniform plexus to the uterine and ovarian veins. On the left side the venous return is said to be somewhat hindered by the fact that the ovarian opens into the renal vein and not directly into the vena cava, but it must be remembered that the pampiniform plexus also drains through the uterine into the internal iliac veins.

The nerve supply is from the aortic plexus of the autonomic system, and reaches the ovary by way of the infundibulo-pelvic ligament and hilum. The surface of the ovary appears to be insensitive to mechanical stimuli, but firm pressure produces, as in the case of the testis, a sickening pain. True ovarian pain is splanchnic, and apparently of a low order; reflected superficial pain of ovarian origin only occurs when the parietal peritoneum is irritated by the ovary.

To simplify the discussion I have divided the ovarian conditions which may produce pelvic pain into four groups, under the headings functional, mechanical, inflam-

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